

REMARKS

As the Examiner will note, claims 1, 15 and 24 have been amended and claims 25-32 have been added. Accordingly, claims 1, 15 and 24-32 are presently under consideration in the present application.

Summary of the Office Action

Claim 24 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. Further, claim 24 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as the invention. Also, claims 1, 15 and 24 are rejected under 35 U.S.C. §103(a) as being unpatentable over Deane et al., U.S. Patent No. 6,686,229 in view of official notice/admitted prior art, in view of Chae et al., US 2002/0135710, and further in view of Okazaki et al., U.S. Patent No. 5,127, 330. These rejections are respectfully traversed.

In view of the amendments made to claim 24, it is believed that the rejections of claim 24 under 35 USC 112, first and second paragraphs, have been eliminated.

The Prior Art

Applicants respectfully traverse the Examiner's prior art rejection as being based on references that neither describe nor suggest the novel combination of features recited in independent claims 1 and 24, as presently amended. For example, independent claim 1 now recites the features of "forming a gate photoresist pattern on the metal layer by a first roller

printing process; etching the metal layer using the gate photoresist pattern as a mask to form a gate line; sequentially forming a gate insulating layer, a semiconductor layer, and a high-concentrated N⁺ layer over the substrate and the gate line; forming an active photoresist pattern on the high-concentrated N⁺ layer by a second roller printing process; sequentially etching the high-concentrated N⁺ layer and the semiconductor layer using the active photoresist pattern as a mask to form a semiconductor layer pattern and a high-concentrated N⁺ layer pattern; performing a lithography process, to form a photoresist layer pattern; removing the conductive layer by using the photoresist layer pattern as a mask to form source and drain electrodes; removing the high-concentrated N⁺ layer pattern above a channel region by using the photoresist layer pattern as a mask, such that the channel region of the semiconductor layer pattern is exposed; forming a contact hole photoresist pattern over the passivation layer by a third roller printing process; forming a pixel electrode layer over the passivation layer and the contact hole; forming a pixel electrode photoresist pattern over the pixel electrode layer by a fourth roller printing process; and removing the pixel electrode layer by using the pixel electrode photoresist pattern as a mask to form a pixel electrode electrically connected with the drain electrode, and wherein the mask applied over the photoresist layer in the step of applying the mask is the only mask; and wherein a plurality of alignment marks are simultaneously formed at the time of the roller printing process.”

In particular, the present invention recites the features “wherein the mask applied over the photoresist layer in the step of applying the mask, is the only mask; and wherein a plurality of alignment marks are simultaneously formed at the time of the roller printing process” as specifically recited in amended claim 1. The expression, “wherein a plurality of alignment marks

are simultaneously formed at the time of the roller printing process” can be found in paragraph [0064] of the present specification. Further, according to the present invention, the plurality of alignment marks may be formed at the time of one of the first to fourth roller printing processes or the first roller printing process, to correctly dispose each pattern to each alignment mark at the time of transferring and to prevent an inconsistency between the patterns generated at the time of aligning the patterns as described in the paragraph [0064].

In the contrast to the claimed invention, Deane et al., in view of Chae et al., and further in view of Okazaki et al. fail to teach or suggest that “the plurality of alignment marks may be formed at the time of one of the first to fourth roller printing processes or the first roller printing process, to correctly dispose each pattern to each alignment mark at the time of transferring and to prevent an inconsistency between the patterns generated at the time of aligning the patterns” as recited in paragraph [0064] of the present application.

Thus, the Applicants respectfully assert that Deane et al., in view of Chae et al., and further in view of Okazaki et al. do not teach or suggest each and every feature as recited in independent claims 1 and 24, as amended. Also, since claim 15 is dependent from claim 1, for the same reasons as argued above, claim 15 is considered to be allowable over the prior art.

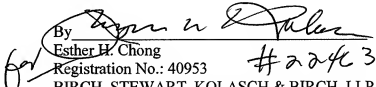
Similarly, since newly added claims 25 to 32 are dependent from either claim 1 or claim 24, it is believed that these claims are also considered allowable over the prior art.

In view of the above amendments and remarks, reconsideration of the rejections and allowance of all the claims of the present application are respectfully requested.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Joseph A. Kolasch, Registration No. 22463, at the telephone number of the undersigned below to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Director is hereby authorized in this, concurrent, and future replies to charge any fees required during the pendency of the above-identified application or credit any overpayment to Deposit Account No. 02-2448.

Dated: August 12, 2010 Respectfully submitted,

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